425 The purchase documents list the names of the vendors, who were described as "sole owners" of the land concerned.(1) There was an average of five "owners" per block, with a range from one to eleven. All of them were men. From the sample checked it appears that not all members (nor even all male members) of the owning sub-clans were included, but rather the heads of the owning sub-clan and of component lineages. Moreover, some heads of neighbouring sub-clans which participated in the project, but were not members of the owning sub-clans, were included. This suggests that the people may have viewed the negotiation as a decision by the signatories and their descent groups to set the land aside for a particular purpose (with the consent of the occupying sub-clan), rather than outright sale by the occupying sub-clan.

Legally the blocks which were purchased belonged to the Crown, but the Orokaiva people do not admit either the sale or any other Crown rights. In the course of field work in 1963 we asked villagers at each of 12 blocks, to whom the land on which the coffee was planted belonged. Invariably we were told that it belonged to one or other of the local sub-clans. In three instances we suggested that it may have belonged to the Crown, but the people reacted so strongly that we did not press the point, (though the strength of their assertion may well have reflected their uncertainty about precise rights to the land).

423 At the time of purchase the officers concerned no doubt pointed out to the owners that the land would not be taken for use by the government, but would be set aside for the collective use of the villages concerned. The plantations were in fact established and it is understandable that the people consider that the landowners were merely granting joint usufruct to members of neighbouring sub-clans. The government has never asserted its legal rights to the abandoned plantations, and it seems unlikely that it will ever do so.

Planting under the ordinance

657 241 Whereas the Native Regulations had been implemented by the Resident Magistrates, provision was made in the

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(1) The vendors were illiterate and signed the documents by the putting of marks.

651 proceeds to be retained by the government was paid into the [241] Native Taxation Account (which was composed of revenue from head tax and native plantations). Average annual government revenue from the plantations was £1,082 and from head tax £14,003. After costs of collection had been met the balance remaining in the Native Taxation Account was transferred to two funds which were entitled, somewhat inaccurately, the Native Education Fund and the Native Benefits Fund.

657 Hulling, marketing and administrative costs incurred in running the plantations scheme were paid from the Native 241 Education Fund. The same fund provided a coffee pulping [871] machine for each of the plantations which was more than about two hours walk from Higaturu, the produce of the closer gardens being pulped at Higaturu Station. In fact no money was spent directly on native education in the Northern District, though some small subsidies were granted to mission schools. The Native Benefits Fund provided for the salary of a Government Anthropologist, medical services, bonuses to large families and other miscellaneous expenses. Only about a quarter of the money in the two funds was spent on education (all in the form of subsidies) and much was simply left to accumulate. When the war broke out there was an unspent balance of £26,199 in [651] the Native Education Fund. The whole plantations scheme (including Native Education and Native Benefits) was administered by the Director of Native Taxation.

465 The producer's half of the income from the coffee was paid, not on delivery, but at the end of each year. The official in charge of the scheme visited each village to make the [211] payments. The ordinance required that payment was to be made in proportion to days worked and, as the village constable who was in charge of the plantation was almost invariably illiterate, some of them kept an "attendance stick" for each man. A notch was cut in the stick for each day of absence other than that caused by illness or the death of a close relative. When the government officer visited the village to make the payments the constable produced the attendance stick of each ●[212] man as he came up for payment. Some constables relied on memory to inform government officers of absentees, but the few literate ones (e.g. at Sombo) were provided with attendance books.

241 65 [466] [625] [177] As Mair (1948 : 85) has noted, the fact that officials could fall back on compulsion gave them no encouragement to considering any alternative approach. The European officer's link with the people was through the village constable, and from what the Orokaiva tell us this line of communication operated in one direction only, for most constables felt that it was improper to query instructions given by Europeans, or to make suggestions to them. Not only was no attempt made to create local institutions which could have carried responsibility for community projects, but the imposed organizational structure did not provide the people with an acceptable model on which to fashion any new local institution. The vesting of all powers of sanction in the central government, moreover, forestalled the possibility of their spontaneous emergence.

465 212 Problems of income distribution: While the Administration paid each individual separately, no overt problem arose, but when government ceased buying and the coffee was sold to a trading company a lump sum was given to the person or persons who brought it in, usually the local coffee boss. Relatively few Orokaiva were literate (among the Asigi there were none) though it may have been possible to have made equal payments to all persons. However, as the community was unable to enforce equal work this was not feasible. Had there been a sufficient standard of literacy it may have been possible to operate on co-operative rather than communal lines (i.e. making payment in terms of work contributed) but in fact few people had the necessary degree of literacy and almost none had any knowledge of book-keeping.

461 [466] [433] Problems of motivation: The Orokaiva were never willing participants in any of the communal schemes (with the exception of rice growing in 1949). Some of them may have begun some of the projects willingly, but continued operation was only achieved by force. The money incentive was quite inadequate: most of the schemes produced no income at all, and those that did gave less (in cash and kind) than employment elsewhere. As already noted in the section on work organization, there was no social incentive to continued production.

241 It has been suggested that the pre-war community projects were merited in that they introduced the people to the

Agricultural extension services were begun about 1950. A, B and D had close relations with particular officers and received significant help from them.

The number of cash crop trees owned by the entrepreneurs in December 1965 is shown in Table 2, together with the number of years since that person began cash-cropping. An attempt was made to estimate the number of adult male kin and the number of employees who have worked with each entrepreneur in terms of man-years, but this was unsuccessful because the people have no clear measure of the periods of time spent by each worker with the employer. Even when the period is reasonably accurately known it is difficult to use comparatively, for relatives who assist do so only from time to time and even employees were often not paid a regular wage nor expected to work all the time.

Table 2

Commercial trees owned by entrepreneurs in December 1965

Entrepreneur	Years since cash-cropping began	Coffee trees	Cocoa trees	Coconut trees	Total trees	Acres*
A	20**	4,400	3,500	-	7,900	22.9
B	14	2,512	1,153	-	3,665	9.6
C	13	-	717	340***	1,057	8.5
D	5	-	3,337	-	3,337	13.3

* Estimated from tree figures using conversion ratios of: 500 coffee trees per acre; 250 cocoa trees per acre; 60 coconut trees per acre.

** As most of A's pre-war trees were destroyed during the war, only his post-war cash cropping experience is considered here.

*** Most of these are old coconuts which were growing before C took over.

There may be a slight relationship between number of trees and the period since cash-cropping began, but I suspect there is a greater correlation between extent of cash crops and the supplementary labour used, whether mainly from kin in the case of A, B and C, or by using loan funds as in D's case.

Retail trading, manufacturing, processing and transport

All four entrepreneurs own stores. A and B aspired to own trade stores for many years but did not establish them until they had literate sons to act as managers. The other two entrepreneurs are themselves literate. An illiterate employee operates C's store but

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212 C visits every few days and counts cash, takes stock and places orders for supplies. D. manages his own store.

592 Illiterate store owners are entirely at the mercy of their managers and it is for this reason that A and B have preferred to entrust the work to their sons, though this policy has not always been successful. As a result of management problems in A's store, management was transferred, with apparent success, to another son, but as B has only one son he feels he has no alternative but to persevere with him. C, being literate, can provide a sufficient check on his illiterate manager at least partly because the latter assumes that literacy gives the owner greater knowledge than it does. C formerly had a literate manager who falsified the records, but says the illiterate man has proved completely reliable since he began five years ago.

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452 All the stores have been closed from time to time owing to inadequacy of money to buy stocks. This has been due to the too liberal granting of credit,[1] personal use of store stock by the owner or manager, and the use of gross store income for other purposes.

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434 All the entrepreneurs feel that trade stores provide more money for less effort than cash-cropping. For all except C this has not been the case in practice. In fact, it is likely that A and B have made little or no net profit on their total trading operations since their inception. They are aware of this, but feel that it has been due to difficulties which they now understand and which are therefore less likely to occur in future. For three of the four this is probably true, but all except C appear to expect higher future income from trading than is likely to eventuate. The stores are very small, turnover for the year 1965 averaging $956.[2] They buy their goods at a discount (inappropriately called 'wholesale') from European and Chinese retailers in Popondetta. Their turnover is too small and their knowledge of commerce too limited to enable them to buy wholesale from outside the district. Mark-up on goods has varied from nothing to 30 per cent and for a long time one of them was retailing at the nearest 10 cents above

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[1] Although they say they have a policy of not giving credit, all four have lost money from giving credit in the past. Three of
626 the four find social pressures such that they continue to grant limited credit to close friends and close kin. In December 1965, A had about $60 unpaid credit outstanding, some of it of several months' duration; and two others had smaller amounts outstanding.

[2] Store turnover for the year for the four entrepreneurs was estimated from available records at $912, $500, $1,992 and $420 respectively.

177 based, is alien and seems dubious to Orokaiva. The Europeans claim
245 that a plant needs to be looked after even if it contains no spirit;
249 to the Orokaiva this appears absurd.

[824] Some Orokaiva have been employed by Europeans as carpenters; these men have certain skills upon which a community draws when large community buildings (for instance, the hospital at Sasembata mission
177 station) need to be constructed. The trained carpenter leads such
335 enterprises in the role of expert. There was one such man in Sasembata village; he, like most others of his type, learned his skill in European employment and not in one of the small adult education ventures which the administration has sponsored from time to time (the adult education classes at Ilimo camp were probably the first of this type).

177 For the rest, the skills acquired by Orokaiva over the last 15
871 years are largely concerned not directly with village development but rather with an increase of understanding of the world outside. While before the war, only a small minority had school education, the Anglican Mission spread its operations to several new stations, including Sasembata, after the war. After the eruption, the scope of education was again greatly extended and it could be said that the eruption marked the beginning of universal school education in the majority of Orokaiva villages. The Sasembata station began to draw virtually the entire child population of the surrounding villages, and most students now follow a five or six year course. While this development had been planned ever since the war, it may be significant that regular school attendance of all the villages in the district was experienced for the first time at Ilimo, where a school was conducted for the whole evacuee child population, and adult classes as well. It is the objective of present school programmes, as far as I can see, to make the population literate and the increase of

[212] literacy is a major aspect of acculturation over the period. Literacy has certainly progressed to a point where letters written in Orokaiva to any family in Sivepe can be read and understood with the help of at least a junior member of the family; and can be replied to. While
177 I could see no evidence that people have acquired mathematical knowledge
802 of any sophistication, I was struck by a strong quantitative orientation. In the Orokaiva language, there are no numerals higher than 2; hence, it is the invariable practise to use English numerals when speaking

[192] the Orokaiva language. The numerals are, in fact, among the main English linguistic features that have been borrowed. They are used with remarkable frequency; the number of coffee trees, the value in pounds of trade goods included in a bride price, the calculation of money prices, even the number of brothers or men who together played some role in a mythological tale (a distinctly contemporary touch, this)--all these phenomena show that "numbers" have become an integral part of Orokaiva culture. The Orokaiva use the English word "number"
177 for a variety of quantitative concepts, including price. Finally, one
829 must regard as an aspect of acculturation, the introduction of many

191 experiences. The problem remains how ideas bearing on social and
[871] economic development can be systematically communicated. When I asked Orokaiva people what language they thought ought to be made official after independence is granted, English was hardly ever suggested. Some said Motu, others Pidgin. I was impressed, however, with the meticulous care the Orokaiva bestow upon their own vernacular.
212 Most of my informants could help me to get Orokaiva texts spelled
124 correctly (and their advice hardly ever conflicted); they were most precise about correcting my grammar and would laugh irrepressibly when a man made a grammatical slip in a speech recorded on tape--this was
121 a joke for days. I would therefore agree with Wurm that a language such as Orokaiva (spoken by at least 25,000) should be used for literacy work and for elementary education.

797 Teachers are trained both in the mission and the government
875 system, but the mission system is primarily aimed at training in Bible knowledge, religious doctrine and Christian values. In the early years of the mission any promising pupil, with two or more years of elementary schooling, might be chosen for training as a mission teacher. Certainly he would get some coaching in how to teach school, but the emphasis was above all religious. More recently, a number of courses were set up by government and mission teachers were encouraged to enter for such courses. The A course is open to men with a Standard 6 education and takes one year. The B course is open to men with a Form 2 education and takes two years. The administration insists on an A certificate as a minimum qualification; in the Northern District, new appointees were usually expected to have a B certificate. The mission is less fortunate; in 1966 in the Northern District, only 97 out of 274 mission teachers had either an A or a B certificate. Out of the Sasembata staff of 12, five were trained; out of the Hohota staff of four, one was trained.

875 The educational qualifications of the teachers are one more
191 reason why it is hard to teach with English as the language of instruction; most of these teachers speak little English themselves. English is their third-best language (next to vernacular and lingua franca) and most of them, even if they come from other districts, will still have more command of Orokaiva and Motu than of English. Many of those at Sasembata came from the Coastal district so that their vernacular was not Orokaiva, but a tongue closely akin to Orokaiva. Those who meet their pupils outside school would not speak English to them then, this being the least effective way they would have of communicating with each other.

875 Teachers' salaries are a subject that has continued to puzzle
465 me. Government teachers are paid according to a scale the bottom of which, in 1965, was $480 per annum. The mission pays $4 per month to Papuan teachers and $12 per month to expatriate teachers. In addition all mission teachers receive free housing, some gardening land to grow taro, occasional distribution of fringe benefits, such as Christmas gifts of used clothing from Australian supporters of the mission. In